

ROLLING BEARING EXCELLENT IN WEAR RESISTANCE

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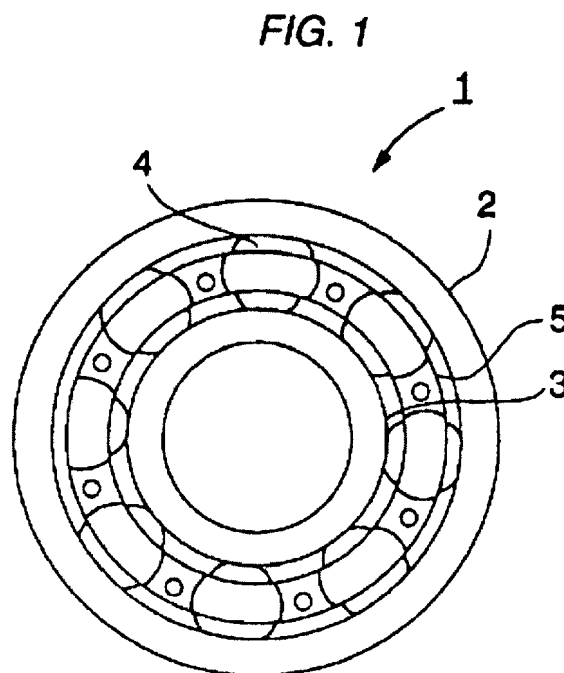
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Abstract of JP8049057

PURPOSE: To improve the wear resistance of a bearing and to obtain its excellent productivity, in a rolling bearing formed by incorporating a specified amt. of V into a medium-low carbon low alloy steel, by executing carburizing or carbonitriding treatment at the time of heat treatment and precipitating VC carbides on to the surface of the product. **CONSTITUTION:** At least one of the bearing ring and a rolling body of a rolling bearing is formed by a steel stock obt'd. by incorporating, by weight, 0.8 to 2.0% V into a medium-low carbon alloy steel contg. 0.1 to 0.7% C, 0.5 to 3.0% Cr, 0.3 to 1.2% Mn, 0.3 to 1.5% Si and $\leq 0.3\%$ Mo. At the time of subjecting the formed product to heat treatment, carburizing or carbonitriding is executed. By this treatment, the relationship in which carbon concn. in the surface of the product is regulated to 0.8 to 1.5wt.% and the V/C concn. ratio in the surface is regulated to 1 to 2.5 is satisfied, and VC carbides are precipitated on to the surface of the product. Since the surface of the product is coated with fine VC type carbides having high hardness, the wear resistance of the bearing under severe using conditions can be improved.



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